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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,555	10/05/2000	Harry Hvostov	ST00-S0027 (850063.581)	2174

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STMICROELECTRONICS, INC.
MAIL STATION 2346
1310 ELECTRONICS DRIVE
CARROLLTON, TX 75006

EXAMINER

LEE, PHILIP C

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/684,555

Applicant(s)

HVOSTOV ET AL.

Examiner

Philip C Lee

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-24 are presented for examination.
2. It is noted that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the Examiner and Applicant all future correspondence should include the recommended line numbering.

Claim Rejections – 35 USC 112

3. Claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. The following terms lack proper antecedent basis:
 - i. the corresponding reference – claim 5.
 - b. Claim language in the following claims is not clearly understood:
 - i. As per claim 10, line 9 and claim 20, line 9, it is unclear if “the components” refers to “a plurality of components” in line 3.

Claim Rejections – 35 USC 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-11 and 15-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Pettus, U.S. Patent 5,832,219 (hereinafter Pettus).

6. As per claim 1, Pettus taught the invention as claimed for managing client-server communications (col. 5, lines 1-4), comprising:

providing a server with functions and interface methods (fig. 9; col. 12, lines 2-9; col. 20, lines 35-39);

providing a client with references to the interface methods (col. 9, lines 49-58; col. 12, lines 34-60); and

processing client requests by invoking the interface methods on the server via the references to the interface methods (col. 5, lines 9-28; fig. 6; col. 10, lines 8-17; col. 11, lines 64-col. 12, lines 9).

7. As per claim 5, Pettus taught the invention as claimed for network device subsystem operations, comprising:

implementing a first component in the network device, the first component having functions and function pointers corresponding to the functions (fig. 9; col. 12, lines 2-9; col. 20, lines 35-39; col. 20, lines 35-39);

implementing a second component in the network device, the second component having references to the function pointers in the first component (col. 12, lines 34-60; col. 13, lines 11-18);

generating a request from the first component for a function in the second component via the corresponding reference to the function pointer (col. 11, lines 64-col. 12, lines 9); and generating a response from the second component to provide the requested function to the first component (col. 12, lines 10-20).

8. As per claim 15, Pettus taught the invention as claimed comprising:

a server component configured with a plurality of functions and function pointers for the plurality of functions (col. 11, lines 64-col. 12, lines 9; col. 20, lines 35-39);

a client component configured with references to the function pointers (col. 12, lines 34-60; col. 13, lines 11-18); and

an interface manager configured to receive requests for functions from the client component and to invoke the requested functions from the server component via the function pointers (col. 11, lines 64-col. 12, lines 9).

9. As per claims 2, 6 and 18, Pettus taught the invention as claimed in claims 1, 5 and 15 above. Pettus further taught wherein providing a server with functions and interface methods comprises providing a table of pointers for the functions (fig. 9; col. 12, lines 2-9; col. 20, lines 35-39).

10. As per claims 3, 7-8 and 19, Pettus taught the invention as claimed in claims 2, 6 and 18 above. Pettus further taught wherein providing a client with references to the interface methods comprising providing references to the table of pointers (col. 13, lines 11-18).

11. As per claims 4, 9 and 16-17, Pettus taught the invention as claimed in claims 3, 8 and 15 above. Pettus further taught wherein processing client requests comprises generating requests from the client for functions from the server by referencing the table of pointers for the requested functions and generating responses from the server to provide the functions requested through the table of pointers (col. 11, lines 64-col.12, lines 20; col. 13, lines 19-25).

12. As per claims 10 and 20, Pettus taught the invention as claimed for a data-over-cable network having a plurality of network stations (col. 1, lines 30-43), comprising:

providing a plurality of components in the network station, each of the plurality of components having a functionality set and a table of pointers for the functionality set (col. 11, lines 64-col. 12, lines 9; col. 20, lines 35-39);

providing a station manager having references to the tables of pointers in the plurality of components (col. 12, lines 34-60; col. 13, lines 11-18);

providing an interface manager for communication with the plurality of components and the station manager (fig. 9; col. 9, lines 49-58; col. 12, lines 10-20); and processing station manager requests for functionality from the components through the interface manager via the references to the tables of pointers (col. 11, lines 64-col. 12, lines 9).

13. As per claims 11 and 21, Pettus taught the invention as claimed in claims 10 and 20 above. Pettus further taught wherein processing station manager requests comprising: generating requests at the station manager for functionality through the references tables of pointers and sending the requests for functionality to the interface manager (col. 13, lines 11-19); and receiving the requests for functionality at the interface manager and invoking the functionality from the requested functionality sets via the table of pointers (col. 11, lines 64-col. 12, lines 16).

Claim Rejections – 35 USC 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 14 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pettus in view of "Official Notice".

16. As per claims 14 and 24, Pettus taught the invention as claimed in claims 11 and 20 above. Pettus did not specifically teach storing data referenced by the pointers are stored in a shared memory area. However, Pettus taught the network station has unit including a ROM, a RAM and a secondary storage unit (fig. 5; col. col. 6, lines 64-col. 7, lines 6). "Official Notice" is taken that the concept of storing data in a shared memory area is well known and accepted in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to store data referenced by the pointers in a shared memory area such as RAM because by doing so would allowed shared access to the data referenced by the pointers to satisfy the requests for functionality.

17. Claims 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pettus in view of Lomet et al, U.S. Patent 6,182,086 (hereinafter Lomet).

18. As per claims 12 and 22, Pettus taught the invention as claimed in claims 11 and 20 above. Pettus did not specifically detailing the order of processing the requests. Lomet taught wherein the requests for functionality are processed serially by the interface manager (col. 8, lines 34-40).

19. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pettus and Lomet because Lomet's means of processing would increased the reliability of Pettus's system by avoiding unpredictable results cause by reversing the serialization order of the requests (col. 8, lines 34-39).

20. Claims 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pettus in view of Harchol-Balter et al, U.S. Patent 6,223,205 (hereinafter Harchol-Balter).

21. As per claims 13 and 23, Pettus taught the invention as claimed in claims 11 and 20 above. Pettus did not specifically detailing the order of processing the requests. Harchol-Balter taught wherein the requests for functionality are processed by the interface manager on a first-come first-served basis (col. 11, lines 46-52).

22. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Pettus and Harchol-Balter because Harchol-Balter's means of processing would increased the fairness of Pettus's system by allowing interface manager to process the requests from plurality of pcessors for functionality in the order which the requests are received.

CONCLUSION

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beser, U.S. Patent 6,049,826 disclosed a method of interfacing a cable modem with a server.

24. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C Lee whose telephone number is (703)305-7721. The examiner can normally be reached on 8 AM TO 5:30 PM Monday to Thursday and every other Friday.

26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng Ai An can be reached on (703)305-9678. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7239.

27. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)350-6121.

P.L.



JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100